

# Applications of Artificial Intelligence in Esophageal Diseases



Can artificial intelligence (AI) improve our management of esophageal diseases? This month's issue of *Gastroenterology & Hepatology* explores the potential use of AI in patients with esophageal diseases. In our Advances in GERD column, Dr Cadman L. Leggett discusses the application of AI in the endoscopic evaluation of esophageal diseases. He also examines whether AI can predict or detect early esophageal cancer and how well it can help in the diagnosis of malignant and benign esophageal disease. Other topics of discussion include AI's impact on clinician labor and patient care, responsible implementation of algorithms, and future applications.

One of our feature articles provides an update on cholangiocarcinoma (CCA). Dr Sudha Kodali, Dr Ashton A. Connor, Dr Elizabeth W. Brombosz, and Dr R. Mark Ghobrial note that CCA is currently the second most common primary liver cancer and has become increasingly common worldwide. The authors delve into CCA screening and diagnosis using different imaging modalities, carbohydrate antigen 19-9, liver biopsy, and fluorescence in situ hybridization. Additionally, the authors review therapeutic options, including systemic therapies and liver transplantation, for different types of CCA.

Our other feature article this month explores the management of *Helicobacter pylori* infection. Dr David Y. Graham recounts how antimicrobial therapy for *H pylori* infection has traditionally been given empirically and its success or failure has either not been confirmed or, if confirmed, has not been used to adjust treatment. Along with rising resistance of antibiotics, this has produced low rates of cure. Dr Graham examines current best practices and recommendations for the integration of susceptibility testing into *H pylori* management.

Our Advances in Endoscopy column, authored by Dr Seth A. Gross, focuses on hemostasis of gastrointestinal (GI) bleeding. His discussion covers the use of standard therapy with various newer modalities such as the Doppler endoscopic probe, over-the-scope clips, and topical hemostatic powder. He also provides tips for minimizing complications, considers the utility of using hemostatic powder alone or in combination with standard therapy, and discusses when to discharge patients after treatment of upper GI bleeding.

Our Advances in IBD column highlights corticosteroid-free remission. Dr Bruno César da Silva discusses when corticosteroids are still being used to manage patients with inflammatory bowel disease (IBD), the disadvantages of corticosteroid therapy, and the tapering of corticosteroids. Other topics of discussion include corticosteroid-free remission rates of novel IBD therapies, when corticosteroid-free remission may be more difficult to attain and maintain in certain patient subgroups, and whether it should remain a clinical trial endpoint.

On a similar note, the goal of being free from corticosteroid therapy is discussed in our Advances in Hepatology column on autoimmune hepatitis. Dr Ethan M. Weinberg discusses the pathogenesis of this disease and its current treatment, which typically consists of corticosteroids with mycophenolate mofetil or azathioprine. His discussion also covers the most recent breakthrough in treatment, the many challenges of drug development and clinical trial design, and several promising drugs in development.

Our other column involving hepatology places a spotlight on the Liver Imaging Reporting and Data System (LI-RADS) for hepatocellular carcinoma (HCC). In a comprehensive interview for our HCC in Focus column, Dr Victoria Chernyak discusses the current uses of LI-RADS, recent updates, and updates expected soon. She also discusses topics such as required magnetic resonance imaging sequences, multifocal HCC, and the biggest gaps in LI-RADS.

Finally, our quarterly content partnership with the Crohn's & Colitis Foundation continues this year. Readers can scan the resource link on page 142 to download a number of customizable appeal letters (eg, for accommodations, medication dose escalation, and prior authorization for treatments).

May this issue provide you with helpful information that you can put to good use in your clinical practice.

Sincerely,

A handwritten signature in black ink that reads "Gary R. Lichtenstein". The signature is fluid and cursive, with the first name being the most prominent.

Gary R. Lichtenstein, MD, AGAF, FACP, FACG